## ADERUS POPULNEUS PANZ. (COL.: ADERIDAE): A PROBLEM OF BIONOMICS

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Mr. D. R. Nash's note on this rather uncommon beetle (93: 204) gives me occasion to raise the question of its true biotope and life-history; which, to judge from the available information, and from what is known of its two congeners in Britain, presents certain puzzling features. Among these is the curious diversity of habitats from which it is recorded, coupled with the fact that the dates of capture extend to every month of the year. Moreover, two observations (one of them published) regarding larval and adult feeding habits are hard to reconcile with the rest. In contrast, our other two species of Aderidae, A. oculatus Payk. and A. brevicornis Perris, are typical for the family — developing only in decayed wood, with an adult activity-period of some 8-10 weeks in late summer. The following short list of situations in which A. populneus has been taken, from data in my possession, will provide some idea of the range concerned. Months of capture are given where known.

Old trees, dead hedges, flowers (Fowler); beaten out of old oaks (S. Stevens); off oak in August and swept under elm in May, singly (Allen); beaten from dead lime boughs (Hansen); in mould under oak bark in March, one in wood-dust of a hollow plane tree in December, bred from wood in May and September, off Salix in May (cf. Mr. Nash's capture above), and once swarming about manure mixed with bark (all Danish records, Hansen); in September (Harwood, and Bookham Common List); in manure heap (Butler); one in a grass heap in January (Hammond); one in 'rubbish' in November (Dinnage coll.); habitually and commonly in cobwebs, indoors and out, apparently feeding on them (R.D. Dumbrell, pers. comm.); larvae 'constantly' found feeding in seeds of ash, adult flying to light in February, and on windows mid-July to late October, March and April (Morley).

The last record is sufficiently interesting to be worth quoting in full, especially as the original may not be readily accessible to many readers. The author is writing of certain hibernating insects:—

"Perhaps the most interesting instance. . . is that of . . . Xylophilus populneus Fabr., whose hibernation seems hitherto to be unknown. This species is usually said to be beaten from old hedges, and its economy appears hitherto unrecorded. Actually the larvae feed in the seeds of ash trees, where I have constantly found them and whence the imagines are frequently beaten in my paddock and garden at Monks Soham [Suffolk], where they were especially common in July 1915; but elsewhere I know of it from only Swalecliff in Kent and Twyford Abbey in Middlesex, where our Hon. Treasurer and I swept it in late June 1897. It takes to wing with great freedom and so is constantly found on my windows here, which enables me to state it perfect from 14 July to at least late in October, and again throughout March and April. I have long suspected its hibernation, which was confirmed on 18 February last when a female flew at 10 p.m. to the lamplight of a warm room, that previously had been little warmed that winter, evidently from some secure winter retreat indoors." (Claude Morley, 1934, Trans. Suffolk Nat. Soc., 2(3): 299.)

<sup>&</sup>lt;sup>1</sup>I am indebted to Mr. Nash for drawing my attention to this very remarkable statement.

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Unfortunately, the strange habitat and pabulum claimed here to be that of the A. populneus larva, unsupported as it appears to be by other observers, can hardly be accepted at face value. For it is not evident from what is said that any of the larvae were actually reared for confirmation of their identity — a most necessary procedure that should not have been difficult; or if they were, we are not told of it. Rather does it seem as though Morley might simply have inferred their identity from his having beaten adults from the same ash trees in whose seeds he found the supposed larvae. Yet if the latter were not those of A. populneus, what in fact were they? No other known British beetle has a larva with this habit, and Morley was surely too competent an entomologist to have mistaken the larva of e.g. a moth for that of a beetle. But, because of the tantalizing lack of proof, this observation must remain in doubt until someone can repeat and verify it.

If Morley's claim is hard to swallow, the idea of a larva that feeds in ash seeds producing an imago that eats cobwebs (see above) is so bizarre a combination as to strain credulity to breaking-point. Spider-silk is such an unlikely pabulum for an Aderid that one has to ask oneself whether the observations of Mr. Dumbrell (for whose good faith I can vouch) could bear another interpretation. May it not rather have been that the beetles found in the webs had been ensnared by them during flight, as many insects are, and were eating them — if they really were — either because in the circumstances there was nothing else to eat, or in attempts to free themselves? (One wonders whether anything is known of the adult

feeding habits of Aderidae.)

The data of Morley and others show beyond doubt that here we have a species whose life-cycle differs from that of its British allies, in that the adults — or at least some of them — hibernate, reappearing in spring; further, it seems to affect a wider range of situations. The possibility of more than one annual brood is suggested by Hansen's breeding records above (v, ix), and by the long imaginal period reminiscent of that typically found in the allied family Anthicidae. The species appears often to select overwintering sites where either fermentation or a building affords a little warmth.

CARCINOPS PUMILIO (ERICHSON) (COL., HISTERIDAE) ATTRACTED TO CAT FOOD. — On 20 September 1970, at my home in Lawford, I was surprised to see a small Histerid beetle crawling in a saucer upon which was an open tin of cat food. Subsequent examination showed that the beetle was Carcinops pumilio. The insect had probably been attracted by the smell of the cat food and had flown in through the large, open window. Its presence could, of course, have been purely fortuitous as I have taken singletons of this species away from carrion etc. on two occasions in the last decade — one crawling up a hornbeam trunk in Bentley Long Wood, Suffolk, and another in a bath in a house in Salisbury, Wilts. — D. R. NASH, 266 Colchester Road, Lawford, Essex CO11 2BU: March 24th, 1981.